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| 09/429,723 | 10/29/1999 | CLAUDE HOPE | BAL6019P0011 | 6250 |

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[REDACTED] EXAMINER

GRUNBERG, ANNE MARIE

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 1661 | 14 |

DATE MAILED: 04/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/429,723

Applicant(s)

Claude Hope et al.

Examiner

Anne Marie Grunberg

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on Jan 25, 2002
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 19-40 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 38 is/are allowed.
- 6) Claim(s) 19-37, 39, and 40 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) All b) Some* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) Notice of References Cited (PTO-892) 18) Interview Summary (PTO-413) Paper No(s). _____
- 16) Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) Notice of Informal Patent Application (PTO-152)
- 17) Information Disclosure Statement(s) (PTO-1449) Paper No(s). 13 20) Other: _____

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DETAILED ACTION

1. Claims 1-18 have been deleted, and new claims 19-40 are pending.
2. The declaration as to the deposit of seeds for hybrid 3087 has been received and is deemed adequate.
3. The declaration by Lynne Knosher has been received and is discussed below.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 19, 26, 32, 33, 36-37, and 39-40 and dependent claims 20-25, 27-31, 34, and 35 are rejected under 35 U.S.C. 112, second paragraph, (newly applied) as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claims 19, 26, 32, 33, 36, and dependent claims 20-25, 27-31, 34, and 35 are rejected because it is not clear whether the plants are sprouted and grown at temperatures that are always above 72°F, or whether they may be grown at any temperature and then when subjected to temperatures above 72°F, the plant continues to exhibit reduced apical dominance. It is unclear

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for what length of time and at what stage of growth the plant can be exposed to temperatures over 72°F and still have reduced apical dominance.

6. Claims 19, 20, 26, 32, 33, 36, and dependent claims 21-25, 27-31, 34, and 35 are rejected because it is not clear what “reduced apical dominance” is. At page 4 of the specification, “reduced apical dominance” is defined as “apical dominance is reduced such that plants expressing this trait have increased basal branching when compared with commercial hybrids”. By this definition, any plant that becomes a commercial hybrid would then not exhibit reduced apical dominance, simply because it became a commercial hybrid. Additionally, it is not clear at what point a plant has increased basal branching. Do all commercial hybrids exhibit the same amount of basal branching? One might assume that increased basal branching would be relative to a statistical mean, but no such mean is defined. Neither is it clear what constitutes “increased basal branching”. If a cultivar is “pinched” it would follow that apical dominance was removed and an increase in basal branching would occur. Additionally, the allele for reduced apical dominance is not defined by genetic sequence or closely linked marker, and based on the above uncertainties, it would not be possible to tell when a plant contains an allele for reduced apical dominance. As a result, the metes and bounds of the claims can not be determined.

7. Claim 36 is unclear in the recitation “the genome of which contains is”. It is also unclear in the recitation “regenerating into plants” as it does not contain an object. Both of these recitations are grammatically unclear and obscure the meaning of the claim.

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8. Claim 37 is indefinite because it is drawn to a *Eustoma*. Plants have not been deposited with the ATCC. Rather seeds, have been deposited. As a result, the claim is rendered unclear. This rejection may be obviated by inserting --seeds-- after "*Eustoma*".

9. Claims 39-40 are rejected due to the absence of ATCC Accession number. Once an accession number is entered into the claims this rejection will be obviated.

Claim Rejections - 35 USC § 112

New Matter

10. Claims 19, 26, 32, 33, and 36, and dependent claims 20-25, 27-31, and 34-35 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The characteristic of reduced apical dominance at a temperature above 72 °F was not described in the specification as originally filed. Applicant argues that this is an inherency trait, however this argument is not persuasive because the claims are directed to all *Eustoma* that exhibit reduced apical dormancy. As Applicant points out, the *Eustoma* described by Griesbach et al does not have this temperature sensitivity and yet is a *Eustoma* exhibiting reduced apical dominance. As a result, this trait is not inherent to all *Eustoma* having reduced apical dominance, and as such, is considered to be new matter.

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Written Description

11. Claims 19-35 are rejected under 35 U.S.C. 112, first paragraph (newly applied), as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims are drawn to any *Eustoma* variety having reduced apical dominance at a temperature above 72°F or which includes plant 752 in its pedigree. However, the specification only discloses *Eustoma* lines bred from 752, an F2 segregating population. In analyzing whether the written description requirement is met for genus claims, it is first determined whether a representative number of species have been described completely. In this case, only progeny from 752 are adequately disclosed in the specification. Next, then, it is determined whether a representative number of species (other than those hybrid lines derived from 752) have been sufficiently described by other relevant identifying characteristics. In this case, there are no other varieties disclosed by any other identifying characteristics that exhibit reduced apical dominance. This limited information is not deemed sufficient to reasonably convey to one skilled in the art that Applicant was in possession of all *Eustoma* varieties that could be produced that have reduced apical dominance at a temperature above 72°F. Thus it is concluded that the written description requirement is not satisfied for the claimed genus.

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12. Claims 19, 26, 32, 33, 36, 39-40, and dependent claims 20-25, 27-31, and 34-35, are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The invention is drawn to all *Eustoma* plants having reduced apical dominance. Since the plants are essential to the claimed invention they must be obtainable by a repeatable method set forth in the specification or otherwise be readily available to the public. If the plants are not so obtainable or available, the requirements of 35 USC 112 may be satisfied by a deposit of all *Eustoma* plants having reduced apical dominance.

If the deposit is made under the terms of the Budapest Treaty, then an affidavit or declaration by applicants, or a statement by an attorney of record over his or her signature and registration number, stating that all *Eustoma* plants having reduced apical dominance have been deposited under the Budapest Treaty and that the strains will be irrevocably and without restriction or condition released to the public upon the issuance of a patent, would satisfy the deposit requirement made herein.

If the deposit has not been made under the Budapest Treaty, then in order to certify that the deposit meets the criteria set forth in 37 C.F.R. 1.801-1.809, applicants may provide assurance of compliance by an affidavit or declaration, or by a statement by an attorney of record over his or her signature and registration number, showing that

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- (a) during the pendency of this application, access to the invention will be afforded to the Commissioner upon request;
- (b) all restrictions upon availability to the public will be irrevocably removed upon granting of the patent;
- © the deposits will be maintained in a public depository for a period of 30 years or 5 years after the last request or for the effective life of the patent, whichever is longer;
- (d) a test of the viability of the biological material at the time of deposits (see 37 CFR 1.807); and,
- (e) the deposits will be replaced if it should ever become inviable.

It is noted that the *Eustoma* cultivars taught in the specification are hybrids or are still segregating. In order to meet the deposit requirement for hybrid cultivar, seed that produce the hybrids may be deposited. Alternatively, Applicant may choose to deposit both homozygous parental lines that when crossed produce the particular hybrid lines. However, it should be noted that seed of segregating cultivars may not be deposited in order to meet the deposit requirements of a segregating line. A segregating line is unstable and seed therefrom will not reproduce true to type. As a result, a segregating line may not be able to meet deposit requirements.

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Claim Rejections - 35 USC § 102

13. Claims 19-23, 32, and 35 are newly rejected under 35 U.S.C. 102(b) as being anticipated by Harbaugh et al.

Claims 19-23, 32, and 35 are drawn to any *Eustoma* plant or its parts, having reduced apical dominance.

Harbaugh et al teach several heat tolerant cultivars of *Eustoma*, and their parts, having reduced apical dominance (page 364, for example).

Claim Rejections - 35 USC § 103

14. Claims 19-25, 32, and 35-36, are rejected under 35 U.S.C. 103(a) as being unpatentable over Harbaugh et al.

Claims 19-25, 32, and 35-36 are drawn to a *Eustoma* plant, or its parts, having reduced apical dominance, containing an allele for reduced apical dominance, or a plant derived therefrom. Additionally, the claims are drawn to a tissue culture of such a plant, a cutting thereof, or a process for identifying such a plant.

Harbaugh et al teach several heat resistant *Eustoma* having reduced apical dominance and their parts. Additionally, they utilize a process for identifying a plant having an allele for reduced

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apical dominance by crossing plants, planting them, recovering seed, regenerating them, and selecting plants exhibiting such traits.

Although Harbaugh et al do not explicitly teach a plant that is homozygous for reduced apical dominance, since a cross of such a plant produced a plant exhibiting reduced apical dominance (page 364, column 2, first paragraph, for example), it can be inferred that the parent was homozygous for the trait.

Since the claims are not drawn to a particular genotype, and since the reduced apical dominance trait already existed in *Eustoma*, the claimed invention can not be distinguished from the prior art. Thus, the claimed invention was clearly *prima facie* obvious to one of ordinary skill in the art, if not anticipated by Harbaugh et al.

Conclusion

Claim 38 is allowed. There is no prior art teaching that exact same genotype.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne Marie Grünberg whose telephone number is (703) 305-0805. The examiner can normally be reached Monday through Friday from 8:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bruce Campell, can be reached on (703) 308-4205. The fax phone number for this group is (703) 308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.



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